

Robert Greene Sterne Edward J. Kessler Jorge A. Goldstein David K.S. Comwell Robert W. Esmend Inay-Gene G. Durkin Michaele R. Cimbala Michaele R. Ray Robert E. Sokohl Erik K. Steffe Michael Q. Lee Sieven R. Ludnig John M. Covert Linda E. Alcom Robert C. Millorig Javenero R. B. Bunatión

Judith U. Kim
Timothy J Shea, J.
Patrick E. Gamett
Heidi I. Kraus
Edward W. Yee
Albert I. Ferro*
Donald R. Banow
Peter A. Jackman
Molly A. McCall
Teresa U. Meedle
Jeffrey S. Weaver
Kendrick P. Patter
Vincent L. Capuar
Albert J. Fasulo III*
Eldora Ellison Floy
Thomas C. Fiala
Brian J. Del Buon
Virol Lee Pleaston

Gmberly N. Reddic Recorder A. Wood Brazbeth I. Hasner Bruce E. Challer Frank R. Gottingha Christine M. Undie Rea Lyun Preogam Jane Sheshesovid Lawrence I. Camil George S. Bardmet Daniel A. Klein* Rodney G. Maze Jason D. Elemberg Michael A. Spects' Andrea J. Kamage Tary L. Muller' Jon E. Wiljeht*

eersa A. Colella effrey S. Lundgren rictona S. Rutherlord S. Illia M. Counsel enneth C. Bass III jas A. Dunner

cenneth C. Bass III Jsa A. Dunner evan R. Smith Admitted only in Maryland Admitted only in Virginia

May 9, 2003

WRITER'S DIRECT NUMBER: (202) 772-8589 INTERNET ADDRESS: LARRYB@SKGF.COM

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

Re:

Group Art Unit 1645

RECEIVED
MAY 1 4 2003

U.S. Utility Patent Application

Appl. No. 09/839,565; Filed: October 17, 2001

Technology Center 2600

For: PTH Receptor and Screening Assay Utilizing the Same Inventors: Gardella et al.

Inventors: Gardella et al.

Our Ref: 0609.4730000/LBB/M-G

Sir:

Transmitted herewith for appropriate action are the following documents:

- Information Disclosure Statement;
- Form PTO-1449 (27 pages);
- 3. Copies of one hundred six (106) cited documents; and
- One (1) return postcard.

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Commissioner for Patents May 9, 2003 Page 2

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Lawrence B. Bugaisky

Attorney for Applicants Registration No. 35,086

Enclosures

SKGF_DC1:131768.1



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Gardella et al.

Appl. No. 09/869,565

Filed: October 17, 2001

For: PTH Receptor and Screening Assay Utilizing the Same Confirmation No. 4604

art Unit: 1645

Examiner: To Be Assigned

Atty. Docket: 0609.4730000/LBB/M-G

Information Disclosure Statement

RECEIVED

Technology Center 2600

Commissioner for Patents Washington, D.C. 20231

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. A copy of each document is also provided.

In accordance with 37 C.F.R. § 1.98(a)(3), Applicants' undersigned representative submits the following, concise explanation of the relevance of the non-English language document AN1 cited on Form PTO 1449:

Document AN1, European Patent Publication No. EP 0 464 533 is in the German language. An English language abstract of document AN1 is attached as Document AT28.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates

should not be construed as an admission that the information was actually published on the

This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits. No statement or fee is required.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered. This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist.

Consideration of the cited documents and making the same of record in the prosecution of the above-identified application is respectfully requested. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Lawrence B. Bugaisky

Attorney for Applicants Registration No. 35.086

Date: May 9 2003

1100 New York Avenue, N.W. Washington, D.C. 20005-3934 (202) 371-2600

::ODMA\MHODMA\SKGF_DC1;131192;1 SKGF Rev 1/24/02 mac MAN 0 9 7000 SE

Page 1 of 27

					ATTY. DOCKET NO. APPLICATION NO. 0609.4730000/LBB/M-G 09/869,565					
TMPC			PTO-1449 CLOSURE STATE	APNIT	APPLICANT Gardella et al.					
INFO	DRMATIO	N DIS	CHOSORE STATE	TEN I	FILING DATE GROUP October 17, 2001 1645					
				U.S. PAT	ENT DOCUMENTS					
EXAMINER INITIAL		DOCU	MENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE		
	AA1		6,196	04/25/1978	Tregear			03/28/1975		
	AB1	5,21	7,896	06/08/1993	Kramer et al.			12/30/1988		
	AC1	6,41	7,333 B1	07/09/2002	Bringhurst et al.			11/24/1999		
	AD1		5,662 B1	12/17/2002	Gardella et al.			10/20/1999		
	AE1	6,53	17,965 B1	03/25/2003	Bringhurst et al.			11/23/1999		
	AF1	6,54	1,220 B1	04/01/2003	Jüppner et al.			11/30/1999		
	AG				- 10	-	L.,			
	AH					REC	FIVE)		
	AI									
,	AJ					WAY	1 4 2003			
	AK	t			,	Technolo	C	200		
				FOREIGN P.	ATENT DOCUMENTS	COLITION	gy Comer 20			
EXAMINER	1	Π		I CAMBRON I						
INITIAL	-	DOCU	MENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATIO		
	AL1	WO 8	7/01130	02/26/1987	WIPO			N N		
	AM1	WO 9	1/05050	04/18/1991	WIPO			Ye N		
	AN1	EP 0	464 533	01/08/1992	Europe			Ye:		
	A01	EP 0	477 885	04/01/1992	Europe			Ye:		
	AP1	WO 9	2/17602	10/15/1992	WIPO			Ye: N		
		01	THER (Includin	g Author, Ti	tle, Date, Pertinent	Pages, et	o.)			
	AR	1	Potentiate the Production in	ne Effect of n Rat Anterio	"Phorbol 12-Myristat Corticotropin-releas: or Pituitary Cells," C themistry and Molecula	ng Factor J. Biol. (on Cyclic a	AMP 29-1136, The		
	as	1	Abou-Samra, A.B., et al., "Cyclic Adenosine 3',5'-Monophosphate (cAMP)- Dependent and cAMP-Independent Regulation of Parathyroid Moxmoe Receptors on UMR 106-01 Osteoblastic Osteosarcoma Cells," Endocrinology 129:2547-2554, The Endocrine Society (1991)							
	AT	1	Abou-Samra, A.B., et al., "Non-Homologous Sequences of Parathyroid and the Parathyroid Hormone Relateed Peptide Bind to a Common Recceptor on ROS 17/2.8 Celle," Endocrinology 125:2215-2217, The Endocrine Society (1989)							
EXAMINER			I.			DATE	CONSIDERED			
Draw line th	rough	citat:	eference consi ion if not in pplicant.	dered, wheth	er or not citation is and not considered.	in confo	rmance with	MPEP 609. form with		

::ODMA\MHODMA\SKGF_DC1;131630;1 SKGF Rev. 1/95



Page 2 of 27

	WT 8	TRAUS			ATTY. DOCKET NO. APPLICAT			NO.			
		FORM	PTO-1449		0609.4730000/LBB/M-G		09/869,565				
INFO			SCLOSURE STATE	MENT	APPLICANT Gardella et al.						
					FILING DATE GROUP October 17, 2001 1645						
				U.S. PAT	ENT DOCUMENTS						
EXAMINER	T					T					
INITIAL	-	DOC	UMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE			
	AA	+				-					
	AB			-			-				
	AC AD	+				-		<u> </u>			
	AE	+				-	REC	CEIVED			
	AF	+				 					
	AG	 					MA'	1 4 2003			
	AH	+-					Technolo	gy Center 26			
	AI	T					Remarks	By Cellier 20			
	AJ										
	AK	1									
				FOREIGN P	ATENT DOCUMENTS		•				
EXAMINER											
INITIAL	-	DOC	JMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION			
	AL2	ED (561 412	09/22/1993	Europe			Yes No			
	1	1	, 301 112	0372271333	вигоре			Yes			
	AM2	GB 2	2 269 176	02/02/1994	Great Britain			No			
	AN2	WO 9	5/11988	05/04/1995	WIPO			Yes No			
	A02	CA 2	2,126,132	12/18/1995	Canada			Yes No			
	AP2	CA 2	2,126,299	12/21/1995	Canada			Yes No			
		07	THER (Including	Author, Tit	le, Date, Pertinent Pag	es, etc	:.)				
	AR	2	Hormone (PTH) Isoform by Bi Signaling Pat	and PTH-rel nding to the hways," J. E	ucturally Diverse N-ter ated Peptide (PTHRP) In: PTH/PTHRP Receptor Typ Niol. Chem. 271:14931-14: r Biology, Inc. (1996)	hibit t	he Na'/H' Exc Activating	hanger NHE3 Distinct			
:	Barbier, JR., et al., "Bioactivities and Secondary Structures of Constrained Analogues of Human Parathyroid Hormone: Cyclic Lactams of the Receptor Binding Region," J. Med. Chem. 40:1373-1380, American Chemical Society (April 1997)										
	AT	2	Bennett, D., et al., "Kinetic Characterization of the Interaction of Biotinylated Human Interleukin 5 with an Fc Chimera of its Receptor a Subunit and Development of a ELISA Screening Assay using Real-Time Interaction Biosensor Analysis," J. Molec. Recognition 8:52-58, John Wiley & Sons, Ltd. (1995)								
EXAMINER						DATE (CONSIDERED				
EXAMINER: In Draw line the next communic	cough o	citat:	ion if not in	dered, wheth conformance	er or not citation is in and not considered. Inc	confor	mance with	MPEP 609. form with			



ΔD3

WO 00/31137

Yes

No

	E	TRADEMACE					Page 3 of 2
	W.	TRADEM		ATTY. DOCKET NO. 0609.4730000/LBB/M-G		APPLICATION 09/869,565	NO.
TNE		FORM PTO-1449 N DISCLOSURE STATE	MENT	APPLICANT Gardella et al.			
2111	OKINITIO	N BIOGROPHIC STRIP		FILING DATE October 17, 2001		GROUP 1645	
			U.S. PAT	TENT DOCUMENTS			
AMINER ITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE					RECE	WED
	AF				1 1	·7	L
	AG					MAY 1	¥ 2003
	AH		1		٠,		10010V 2800
	AI			ļ		echnology v	tenter 2600
	AJ		ļ		1 -		
	AK	l		l .			
			FOREIGN P.	ATENT DOCUMENTS			r
AMINER ITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL3	EP 0 748 817	12/18/1996	Europe			Yes No
	AM3	WO 97/02834	01/30/1997	WIPO			Yes
	AN3	WO 98/05683	02/12/1998	WIPO			Yes
	A03	WO 99/18945	04/22/1999	WIPO			Yes

Bergwitz, C., et al., "Full Activation of Chimeric Receptors by Hybrids between AR Parathyroid Hormone and Calcitonin, " J. Biol. Chem. 271:26469-26472, The American Society for Biochemistry and Molecular Biology, Inc. (1996) Bergwitz, C., et al., "Residues in the Membrane-spanning and Extracellular Loop Regions of the Parathyroid Hormone (PTH) - 2 Receptor Determine Signaling AS Selectivity for PTH and PTH-related Peptide, " J. Biol. Chem. 272:28861-28868, The American Society for Biochemistry and Molecular Biology, Inc. (November 1997) Bisello, A., et al., "Parathyroid Hormone-Receptor Interactions Identified Directly by Photocross-linking and Molecular Modeling Studies," J. Biol. Chem. 273:22498-22505, The American Society for Biochemistry and Molecular Biology, AΤ Inc. (August 1998)

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

EXAMINER DATE CONSIDERED

06/02/2000



	- 17EM		OEMIE .						Page 4 of 27			
		& INF			ATTY. DOCKET NO. 0609.4730000/LBB/	M-G		APPLICATION 09/869,565	NO.			
			PTO-1449		APPLICANT Gardella et al.							
INF	ORMATIC	ON DIS	CLOSURE STATE	MENT	FILING DATE October 17, 2001			GROUP 1645				
				U.S. PAT	PENT DOCUMENTS							
EXAMINER INITIAL		DOC	UMENT NUMBER	DATE	NAME		CLASS	SUB-CLASS	FILING DATE			
	AA				V.							
	AB	 										
	AC	1						-				
	AD	+						 				
	AE AF	+-						+				
	AG	+-		 -				REC	EIVED			
	AH	+										
	AI	1	8					MAY	1 4 2003			
	AJ							Technology	Center 2600			
	AK							1 comology	CONTON ACCUM			
				FOREIGN P	ATENT DOCUMENTS							
EXAMINER INITIAL		DOC	JMENT NUMBER	DATE	COUNTRY		CLASS	SUB-CLASS	TRANSLATION			
	AL4	Wo o	00/32775	06/08/2000	WIPO				Yes No			
									Yes			
	AM4	WO 0	00/39278	07/06/2000	WIPO				No Yes			
	AN4	WO (01/23427	04/05/2001	WIPO				No			
	A04	WO (01/23521	04/05/2001	WIPO				Yes No			
	AP								Yes No			
		0	THER (Includin	g Author, Ti	tle, Date, Pertiner	ıt Page	s, et	c.)				
	AR	4		ubstitutions,	riphering the Messa " <i>Science 247</i> :1306 (990)							
	AS	4	Has Equal Af: Domains of P	Caulfield, M.P., et al., "The Bovine Renal Parathyroid Hormone (PTH) Receptor Has Equal Affinity for Two Different Amino Acid Sequences: The Receptor Binding Domains of PTH and PTH-Related Protein Are Located within the 14-34 Region" Endocrinology 127:83-87, The Endocrine Society (1990)								
	AT	4	Parathyroid 1	Hormone Relat	fications of Posit ed Protein: Toward 0:1580-1586, Americ	the D	esian	of Highly Po	tent			
EXAMINER							DATE	CONSIDERED				
	nrough	citat	ion if not in		er or not citation and not considered							
		A	er-roune.									



Page 5 of 27

	-	THADE			ATTY. DOCKET NO. 0609.4730000/LBB/M-G		APPLICATION NO. 09/869,565			
			PTO-1449		APPLICANT Gardella et al.		,,			
INF	ORMATIC	ON DIS	SCLOSURE STATES	MENT	FILING DATE GROUP October 17, 2001 1645					
				U.S. PAT	PENT DOCUMENTS					
EXAMINER INITIAL		DOC	UMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE		
	AA									
	AB					ļ		171		
	AC	1				ļ				
	AD	₩				 		L		
	AE	-				-	RECE	EIVED		
	AF	+				1	ļ .			
	AG	+				╁	MAY :	4 2003		
	AH	+-			-	+	Technology	Center 2600		
	AJ	+				1	i cominicaj	00.1101 2000		
	AK	+				1				
	7		-	FOREIGN P	ATENT DOCUMENTS	-				
EXAMINER		1		T				I		
INITIAL		DOC	UMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION		
	AL							Yes No		
	TAB.	+				 		Yes		
	AM	_				<u> </u>		No		
	AN							Yes No		
	AO							Yes No		
	AP							Yes No		
	Ar	_	THPP (Includin	g Author Ti	tle, Date, Pertinent Pa	700 Ot	- \	NO		
	AR	5	Cleland, J.L Look at Prote	., et al., "T ein Aggregati	The Development of Stablion, Deamidation, and Ox 77, CRC Press, Inc. (195	e Prote	in Formulati			
	AS	5	and 6. Effect	s on Recepto	alogues of Parathyroid For Binding and Activation 266:1997-2004, The America (1991)	n of A	enylyl Cycla	se in Kidney		
	АТ	Cunningham, B.C., and Wells, J.A., "High-Resolution Epitope Mapping of hGH- Ecceptor Interactions by Alanine-Scanning Mutagenesis," Science 244:1081-1085, American Association for the Advancement of Science (1989)								
EXAMINER	•		1			DATE	CONSIDERED			
	hrough	citat	ion if not in		er or not citation is i and not considered. In					



Page 6 of 27

	~	& THE			ATTY. DOCKET NO. 0609.4730000/LBB/M-G	APPLICATION NO. 09/869,565				
			PTO-1449		APPLICANT Gardella et al.					
INFO	RMATIO	N DIS	CLOSURE STATEM	IENI	FILING DATE October 17, 2001		GROUP 1645			
				U.S. PAT	ENT DOCUMENTS					
EXAMINER INITIAL		DOCU	MENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE		
	AA	<u> </u>					ļ			
	AB	-								
	AC	-				-				
	AD AE						DECI	-IV/ED		
	AF						HEU	EIVED		
	AG					ļ	MAY	1 4 2003		
	AH	-					Tashnologi	Center 260		
	AJ					 	Technolog	V Center 200		
	AK					T .				
				FOREIGN PA	ATENT DOCUMENTS					
EXAMINER INITIAL		DOCU	MENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION		
	AL							Yes No		
	AM							Yes No		
	AN							Yes No		
	AO							Yes No		
	AP							Yes No		
		01	HER (Including	Author, Ti	tle, Date, Pertinent Pag	es, et	c.)			
	AR	<u>6</u>	laevis cortic	otropin-rele " Proc. Natl	"Mapping of the ligand- masing factor receptor 1 . Acad. Sci. USA 95:494	: Impl	ications for	the ligand-		
	AS	<u>6</u>	Receptor: Cry	Vos, A.M., et al., "Human Growth Hormone and Extracellular Domain of Its ceptor: Crystal Structure of the Complex," Science 255:306-312, American sociation for the Advancement of Science (1992)						
	AT	<u>6</u>	Hormone-Relea	DeAlmeida, V., and Mayo, K., "Identification of Binding Domains of the Growth Hormone-Releasing Hormone Receptor by Analysis of Mutant and Chimeric Receptor Proteins," Mol. Endocrinol. 12:750-765, The Endocrine Society (May 1998)						
EXAMINER						DATE	CONSIDERED			



	7750		JE AT						Page 7 of 2	
	~	& THA			ATTY. DOCKET 0609.4730000			APPLICATION 09/869,565	NO.	
		FORM	PTO-1449		APPLICANT					
INF	ORMATI	ON DIS	SCLOSURE STATE	MENT	Gardella et	a1.	- 1	GROUP		
					October 17, 2001 1645					
				U.S. PA	TENT DOCUMENTS	3				
EXAMINER INITIAL	i	DOC	UMENT NUMBER	DATE	NAME		CLASS	SUB-CLASS	FILING DATE	
21121212	AA	1	OTIDIVI MOTIDDIX		TALLE .		Canoo	CDD CDASS	TIBING DATE	
	AB	1								
	AC									
	AD									
	AE	_					<u> </u>	RECE	VED	
	AF				L			MAY 1	2003	
	AG	_						mai I.	2000	
	AH	+					- T	dchnology C	enter 2600	
	AJ	+-		-	 		-			
<u> </u>	AK	+		 			-			
	_ IAIK			FOREIGN P	ATENT DOCUMENT	TS	1			
EXAMINER		T		1			Γ			
INITIAL		DOC	UMENT NUMBER	DATE	COUNTRY		CLASS	SUB-CLASS	TRANSLATION	
	AL								Yes	
	122	\vdash					 	 	No Yes	
	AM	<u> </u>					ļ		No	
	AN								Yes No	
	AO								Yes	
	AP	Г							Yes	
		0.	THER (Includin	g Author, Ti	tle, Date, Per	rtinent Pac	es, et	2.)		
	AR	2	Dempster, D.	W., et al.,	*Anabolic Acti The Endocrine	ons of Par	athvroí		Bone,"	
	AS	2	Analogues on like Cells,"	Cytosolic Ca J. Biol. Che	Differential E alcium Ion and em. 263:13522- ar Biology, In	CAMP Leve 13527, The	ls in C	ultured Rat	Osteoblast -	
	AT	2	Gardella, T.J., et al., "Mutational Analysis of the Receptor-activating Region of Human Parathyroid Hormone," J. Biol. Chem. 266:13141-13146, The American Society for Biochemistry and Molecular Biology, Inc. (1991)							
EXAMINER	•		•				DATE	CONSIDERED		
EXAMINER: I Draw line the next communi	ırough	citat	eference consi ion if not in pplicant.	dered, wheth conformance	er or not cita and not consid	ation is in dered. Inc	confo	rmance with opy of this	MPEP 609. form with	



AO.

EXAMINER

Page 8 of 27

Yes No Yes

Yes

DATE CONSIDERED

ATTY. DOCKET NO. 0609.4730000/LBB/M-G APPLICATION NO. 09/869,565 FORM PTO-1449 APPLICANT Gardella et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP October 17, 2001 1645 U.S. PATENT DOCUMENTS EXAMINER CLASS SUB-CLASS FILING DATE INITIAL DOCUMENT NUMBER DATE NAME AB AC ΑD ΑE RECEIVED AF AG ΑН MAY 1 4 2003 ΑI Technology Center 2600 AJ ΔK FOREIGN PATENT DOCUMENTS EXAMINER INITIAL DOCUMENT NUMBER DATE COUNTRY CLASS SUB-CLASS TRANSLATION Yes AT. No Veq No

AP								No
	OT	THER (Including	Author, Ti	le, Date, Per	tinent Pag	es, etc	.)	
AR	8	in the Transm	embrane Regi	Determinants on of the Par ine Society (athyroid H			
AS	8	Binding Regio	n by Site-Di	Analysis of P rected Mutage ine Society (nesis and A			
 AT	8	(PTH)/PTH-rel Signaling by	ated Peptide Agonist Liga	Transmembrane Receptor Tha nds," J. Biol and Molecular	t Specifica . Chem. 27.	ally Af: 1:12820	fect Binding -12825, The	and



Page 9 of 27

		7/ & T	RAU		ATTY. DOCKET NO. 0609.4730000/LBB/M-G		APPLICATION NO. 09/869,565				
TNPO			PTO-1449 CLOSURE STATE	APNIT	APPLICANT Gardella et al.						
INFO	KPIKITO	W DIS	CHOSOKE STATE		FILING DATE GROUP October 17, 2001 1645						
				U.S. PAT	ENT DOCUMENTS						
EXAMINER INITIAL		DOCU	MENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE			
	AA										
	AB										
	AC	<u> </u>	-	ļ							
	AD	-					ļ				
	AE	-									
	AF AG	+					REC	EIVED			
	AH						1				
	AI						MAY	1 4 2003			
	АJ						Technolog	y Center 2600			
	AK			_	<u> </u>	L		y			
		1		FOREIGN P.	ATENT DOCUMENTS		T	T			
EXAMINER INITIAL		DOCL	MENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION			
	AL							Yes No			
	АМ							Yes No			
	AN							Yes No			
	AO							Yes No			
	AP							Yes No			
	124	- 01	THER (Includin	g Author, Ti	tle, Date, Pertinent Pag	es. et	:.)				
	AR	2	Gardella, T.o Peptides Reve the Ligand,"	J., et al., " eal Functiona J. Biol. Che	Parathyroid Hormone (PTI 11 Interactions between 1 mm. 270:6584-6588, The Au 1r Biology, Inc. (1995)	H)-PTH-	related Pept 4 and 15-34	Domains of			
	Gentz, R., et al., "Bioassay for trans-activation using purified human immunodeficiency virus tat-encoded protein: Trans-activation requires mRNA synthesis." Proc. Natl. Acad. Sci. USA 86:821-824, National Academy of Sciences (1989)										
	AT	2	Hormone," in 14th American	Gombert, P., et al., "Alanine and D-Amino Acid Scan of Human Parathyroid Hormone," in Peptides: Chemistry, Structure and Biology. Proceedings of the 1sth American Peptide Symposium, June 18-23, Kaumaya, P. T.P., and Hodges, R.S., eds., Mayflower Scientific Ltd., Kingewinford, UK, pp. 661-662 (1996)							
EXAMINER						DATE	CONSIDERED				
Draw line th	rough	citat:	ion if not in		er or not citation is in and not considered. Inc						
next communic	cation	to A	oplicant.		·						



Page 10 of 27

	,	-			ATTY. DOCKET NO. 0609.4730000/LBB/M-G		APPLICATION NO. 09/869,565			
			PTO-1449 CLOSURE STATE	ADME	APPLICANT Gardella et al.					
INF	ORMATIC	N DIS	CLOSURE STATE	TEN1	FILING DATE GROUP October 17, 2001 1645					
				U.S. PAT	ENT DOCUMENTS					
EXAMINER INITIAL		DOC	JMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE		
	AA									
	AB									
	AC				,	-				
	AD	-				-	+			
	AE	+		-		-	DEOL	-11 /		
	AF	+				-	HECE	IVED		
	AG AH	+-						4 2003		
	AI									
	AJ	1	-			—	Technology	Center 2600		
	AK									
				FOREIGN P.	ATENT DOCUMENTS					
EXAMINER										
INITIAL	+	DOCI	JMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION		
	AL							No		
	AM							Yes No		
	AN							Yes No		
	AO							Yes No		
	AP							Yes No		
	1	- 0	THER (Includin	g Author, Ti	tle, Date, Pertinent Pag	es, et	c.)			
	AR	10	Density Modu	lates Activat	vroid Hormone (PTH)/PTH- rion of Phospholipase C rinology 136:3884-3891,	and Pho	sphate Trans	Sport by PTH		
	AS	10	Hjorth, S., Endocrinol.	et al., "Cons 12:78-86, The	stitutive Activity of Gl Endocrine Society (Jan	ucagon uary 1	Receptor Mut	cants," Mol.		
	AT	10	Holtmann, M., et al., "Critical Contributions of Amino-terminal Extracellular Domains in Agonist Binding and Activation of Secretin and Vasoactive Intestinal Polypeptide Receptors. Studies of Chimeric Receptors, "J. Biol. Chem. 270:14394-14398, The American Society for Biochemistry and Molecular Biology, Inc. (1995)							
EXAMINER						DATE	CONSIDERED			
	hrough	citat	ion if not in		er or not citation is is and not considered. In					



Page 11 of 27

		d TRAU			ATTY. DOCKET NO. 0609.4730000/LBB/M-G	APPLICATION NO. 09/869,565					
			PTO-1449		APPLICANT Gardella et al.		09/869,363				
IN	FORMATI	ON DIS	SCLOSURE STATE	MENT	FILING DATE GROUP October 17, 2001 1645						
				U.S. PAT	PENT DOCUMENTS						
EXAMINER INITIAL		DOC	UMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE			
	AA										
	AB										
	AC										
	AD	1									
	AE						RECE	IIVED.			
	AF	-									
	AG					-		4 2003			
	AH						Technology	Center 2600			
	AJ						BATTLE SALES				
	AK						ļ				
				FOREIGN P.	ATENT DOCUMENTS						
EXAMINER INITIAL		DOC	UMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION			
	AL							Yes No			
	АМ							Yes No			
	AN							Yes No			
	AO							Yes No			
		+				1		Yes			
	AP		mrmn (T114-	- 1	tle, Date, Pertinent Pa		- \	No			
	AR	11	Horiuchi, N. Biological E	, et al., "A valuation of	Parathyroid Hormone Ir a Hormone Analog," Sci ncement of Science (198	hibitor	in vivo: Des	sign and American			
	AS	11	Production in	n Renal Tubul	rimulation of Inositol lar Cells by Parathyroi ler University Press (1	d Hormo					
	AT	11	with Essentia Biol. Chem.	Ji, I.H., and Ji, T.H., "Human Chorlogonadotropin Binds to a Lutropin Receptor with Essentially No M-terminal Extension and Stimulates CAMP Synthesis," J. Biol. Chem. 26:11076-11079. The American Society for Biochemistry and Molecular Biology, Inc. (1991)							
EXAMINER						DATE	CONSIDERED				
EXAMINER: Draw line t next commun	through	citat	ion if not in		er or not citation is and not considered. I						



Page 12 of 27

	-	1111111			ATTY. DOCKET NO. 0609.4730000/LBB/M-G		APPLICATION NO. 09/869,565			
TMPC			PTO-1449 SCLOSURE STATEM	APAIT.	APPLICANT Gardella et al.	•				
			CECOOKE STATE		PILING DATE GROUP October 17, 2001 1645					
				U.S. PAT	TENT DOCUMENTS					
EXAMINER INITIAL		DOC	JMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE		
	AA									
	AB	<u> </u>								
	AC					-				
	AD	ļ	_				-			
	AE	+		ļ		 	RECE	WED		
	AF AG	+-					1400	, A L D		
	AH	+		-		—	MAY 1	4 2003		
	AI	\vdash				1	echnology (Conta- Cons		
	AJ						iology (verner 2600		
	AK									
				FOREIGN P.	ATENT DOCUMENTS					
EXAMINER		l								
INITIAL		DOCU	MENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION		
	AL	1						Yes No		
	AM							Yes No		
	AN							Yes No		
	AO							Yes No		
								Yes		
	AP	l						No		
		07	THER (Including	Author, Ti	tle, Date, Pertinent Pag	es, et	:.)			
	AR	12	Receptor α Su of Drosophila	bunit. Large -Expressed F	nding Interactions of H Scale Production, Stru tecombinant Proteins," J Biochemistry and Molecu	ctural, . Biol.	and Function Chem. 270:9	nal Studies 459-9471,		
	AS 12 Jüppner, H., et al., "A G Protein-Linked Receptor for Parathyroid Hormone and Parathyroid Hormone-Related Peptide," Science 254:1024-1026, American Association for the Advancement of Science (1991)									
	AT	12	Jüppner, H., et al., "The Extracellular Amino-Terminal Region of the Parathyroid Hormone (PTH)/PTH-Related Peptide Receptor Determines the Binding Affinity for Carboxyl-Terminal Pragments of PTH-(1-34), "Endocrinology 134:879- 884, The Endocrine Society (1994)							
EXAMINER			•			DATE	CONSIDERED			
Draw line thi	cough o	citat:	ion if not in (dered, wheth	er or not citation is in	confo	rmance with I	MPEP 609.		
next communic	Draw line through citation if not in conformance and not considered. Include copy of this form with mext communication to Applicant.									



MA	, TE	/						E	age 13 of 27
FINT 8	TRADE				ATTY. DOCKET NO. 0609.4730000/LBB/M	1-G	A	PPLICATION 9/869,565	NO.
			PTO-1449		APPLICANT Gardella et al.				
INF	ORMATIC	N DIS	CLOSURE STATEM	MENT	FILING DATE			ROUP	
				7.0 22	October 17, 2001		1	.645	
EXAMINER		T	***	J 0.5. PA	TENT DOCUMENTS				
INITIAL		DOCU	MENT NUMBER	DATE	NAME	CL	ASS	SUB-CLASS	FILING DATE
	AA	<u> </u>							
	AB	₩				-			
	AC								
	AD AE	+				-			
	AF	+		<u> </u>			- /1	RECE	VED
	AG	+					- 18	1-0-1	VEU.
	AH	+			*****			MAY 1 4	2003
	AI						To	chaology O	
	AJ						10	chnology Co	nter 2600
	AK								
	_			FOREIGN F	ATENT DOCUMENTS				
EXAMINER INITIAL		DOG	MENT NUMBER	DATE	COUNTRY	C.	ASS	SUB-CLASS	TRANSLATION
INITIAL		DOCE	MENT NUMBER	DATE	COUNTRI	100	мээ	30B-CLASS	Yes
	AL								No
	AM				1				Yes No
	AN								Yes No
									Yes
	AO	1							No Yes
	AP				<u> </u>	<u> </u>		<u> </u>	No
	1	<u>0'</u>	THER (Includin	g Author, Ti	tle, Date, Pertinen	t Pages,	etc	.)	
	AR	13			: A G-Protein-Couple Academic Publishers		tor	Database,"	Receptors and
	AS	13	Chemistry, a:	nd Action,"	, "Parathyroid Hormoin Handbook of Expe T.J., eds., Springe	rimental	Pha	rmacology, \	/olume 107,
	AT	13	Lanske, B., Hedgehog-Reg the Advancem	ulated Bone	/PTHrP Receptor in 1 Growth," Science 27: ce (1996)	Early De 3:663-66	velo	pment and Ir merican Asso	ndian ociation for
EXAMINER						DA	ATE	CONSIDERED	



\ .	- 5E/						I	age 14 of 27	
ATENT 8	180				ATTY. DOCKET NO. 0609.4730000/LBB/M-G	APPLICATION NO. 09/869,565			
TANDO			PTO-1449	4D) m	APPLICANT Cardella et al.				
INFO	RMATIC	N DIS	CLOSURE STATEM	TENT	FILING DATE October 17, 2001	GROUP 1645			
-				U.S. PAT	TENT DOCUMENTS				
EXAMINER	Γ	T		I			T		
INITIAL		DOCU	MENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE	
	AA	-					ļ		
	AB	-				1			
	AC	╄				├			
	AD	-		-					
	AE	+				 	+		
	AF					-			
	AG	1				├	DECE	11.77	
	AH	+-				 	RECE	HVED.	
	AJ	 				 	MAY T	4 2003	
	AK						1		
	AK			POPPTON P	ATENT DOCUMENTS	_	Technology	Center 2600	
EXAMINER	Τ	Ι		FOREIGN P	ATENT DOCUMENTS				
INITIAL		DOCU	MENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION	
						l		Yes	
	AL	-						No	
	AM							Yes No	
								Yes	
	AN	<u> </u>						No	
	AO							Yes No	
								Yes	
	AP							No	
	_	07	HER (Includin	g Author, Ti	tle, Date, Pertinent Pag	es, et	c.)		
	AR	14	Lee, C., et al., "Homolog-Scanning Mutagenesis of the Parathyroid Hormone (PTH Receptor Reveals PTH-(1-34) Binding Determinants in the Third Extracellular Loop," Mol. Endocrinol. 9:1269-1278, The Endocrine Society (1995)						
	AS	14		lated Peptide	the Extracellular Regi Receptor in Hormone Bi Ety (1994)				
	AT	14	Intact and Ar	mino-Terminal	(1-14) Fragment of Para ly Truncated PTH-1 Rece Society (May 1999)				
EXAMINER						DATE	CONSIDERED		



Par	- 206	8 /						F	age 15 of 27	
ENT					ATTY. DOCKET NO. 0609.4730000/LBB/M-	G	P C	APPLICATION 1	NO.	
TNEO			PTO-1449 CLOSURE STATEM	AFNT	APPLICANT Gardella et al.					
INFO	RPMIIC	N DIS	CEOSORE STATE	TEN I	FILING DATE GROUP October 17, 2001 1645					
				U.S. PAT	TENT DOCUMENTS					
EXAMINER INITIAL		DOCT	MENT NUMBER	DATE	NAME	CI	LASS	SUB-CLASS	FILING DATE	
	AA_									
	AB									
	AC	ļ								
	AD	-				_				
	AE	├						RECE	VED	
	AF	+-				-		IL.CE	IVEU,	
	AG	┼				-		MAY 1.	4 2003	
	AI	 					т.			
	AJ						- 10	chnology C	enter 2600	
	AK									
				FOREIGN PA	ATENT DOCUMENTS					
EXAMINER INITIAL		DOCU	MENT NUMBER	DATE	COUNTRY	CI	LASS	SUB-CLASS	TRANSLATION	
	AL								Yes No	
	AM								Yes No	
	AN								Yes	
	AO AO								No Yes	
		<u> </u>				\top			No Yes	
	AP				le, Date, Pertinent	P		Ļ	No	
	AR	15	Mannstadt, M. Terminus of t Cross-linking	., et al., "E he Parathyro and Mutatio	vidence for a Ligand id Hormone (PTH)/PTH nal Studies, " J. Bio chemistry and Molecul	Inter -relat	ractions action of the contraction of the contracti	on Site at t rotein Recep 73:16890-168	tor from 96, The	
	AS	<u>15</u>	parathyroid h	normone/parat	olecular cloning of hyroid hormone-relat 55, National Academy	ed pep	otide	receptor,"		
	AT 15 McGeoch, D.J., "On the predictive recognition of signal peptide sequences," Virus Res. 3:271-286, Elsevier Science B.V. (1985)									
EXAMINER						D	DATE O	CONSIDERED		
EXAMINER: In Draw line the next communic	rough ·	citat:	ion if not in	dered, wheth	er or not citation is and not considered.	s in c	onfor	mance with ppy of this	MPEP 609. form with	

Page 16 of 27

FORM PTO-1449

APPLICANT INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO. 0609.4730000/LBB/M-G APPLICATION NO. 09/869,565 Gardella et al.

TN	FORMATT	ON DIS	CLOSURE STATE	MENT	Garderia ct ar.				
					FILING DATE October 17, 2001		GROUP 1645		
				U.S. PA	TENT DOCUMENTS				
EXAMINER INITIAL		DOC	JMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE	
	AA								
	AB								
	AC	1							
	AD	1					hear		
	AE			ļ			RECE	MFD_	
	AF	_					MAY	4 2002	
	AG	_					MAY 1	2003	
	AH	+				<u>i</u>	dchnology C	enter 2600	
	AI	+		-		E	Jointology C	PINOI 2000	
	AJ	+							
	AK								
		_		FOREIGN F	PATENT DOCUMENTS			1	
EXAMINER INITIAL		DOC	JMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION	
	AL .							Yes No	
	AM							Yes No	
	AN							Yes No	
	AO							Yes	
								Yes	
	AP	ــــــــــــــــــــــــــــــــــــــ					<u> </u>	No	
	1	o	THER (Includir	g Author, Ti	tle, Date, Pertine	nt Pages, et	c.)		
	AR	<u>16</u>	Mikayama, T., et al., "Molecular cloning and functional expression of a cDNA encoding glycosylation-inhibiting factor," Proc. Natl. Acad. Sci USA 90:10056-10060, National Academy of Sciences (1993)						
	AS	16			M., "A Knowledge karyotic Cells," G				
	Neugebauer, W., et al., "Solution Structure and Adenylyl Cyclase Stimulating AT 16 Activities of C-Terminal Truncated Human Parathyroid Hormone Analogues,"								

EXAMINER DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

Biochem. 34:8835-8842, American Chemical Society (1995)



Page 17 of 27

FORM PTO-1449

ATTY. DOCKET NO. 0609.4730000/LBB/M-G APPLICANT Gardella et al. APPLICATION NO. 09/869,565

INFORMATION DISCLOSURE STATEMENT

Gardella et al.

FILING DATE GROUP
October 17, 2001 1645

				October 17, 200	1 1	.045	
			v.s.	PATENT DOCUMENTS			
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF					ECE	VED
	AG				i i		
	AH					MAY 1 4	2003
	AI		_				
	AJ				Те	chnology C	enter 2600
	AK				MALE.	A Line of the last	
			FOREIGN	PATENT DOCUMENTS			
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Ye:
	AN						Ye: N
		1					Ye: Ne
	AO						

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

Nielsen, H., et al., Prot. Eng. 10:1-6, Identification of prokaryotic and eukaryotic signal peptides and prediction of their cleavage sites, "Oxford university Press (January 1997)

Nussbaum, S.R., et al., "Parathyroid Hormone*Renal Receptor Interactions. Demonstration of Two Receptor-Binding Domains," J. Biol. Chem. 255:10183-10187, The American Society of Biological Chemists, Inc. (1980)

Nutt, R.F., et al., "Removal of Partial Agonism From Parathyroid Hormone (PTH) Related Protein-(7-34)NM, by Substitution of PTH Amino Acids at Positions 10 and 11," Endocrinology 127:491-493, The Endocrine Society (1990)

EXAMINER DATE CONSIDERED



EXAMINES INITIAL

EXAMINED

We.	,	<i>\$</i> /					Page 18 of	f
ATEN	VT 8 TRAD	<u> </u>		ATTY. DOCKET NO. 0609.4730000/LBB/M-G		APPLICATION 09/869,565	NO.	
		FORM PTO-1449 ON DISCLOSURE STATE	MENT	APPLICANT Gardella et al.				
4		A DIGGEOGLE CITE		FILING DATE October 17, 2001		GROUP 1645		_
			U.S. PAT	TENT DOCUMENTS				_
:		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING D	A.
	AA							
	AB							
_	AC							
	AD							
	AE					DEC	中ハニ	

AF AG MAY 4 2003 AH Technology Center 2600 ΑI AJ AK FOREIGN PATENT DOCUMENTS EXAMINER INITIAL DOCUMENT NUMBER CLASS SUB-CLASS DATE COUNTRY TRANSLATION Vec No Yes No Yes No Yes No Yes

AP No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Pinckard, R.N., et al., "Factors Influencing the Immune Response. I. Effects of the Physical State of the Antigen and of Lymphoreticular Cell Proliferation on AR 18 the Response to Intravenous Injection of Bovine Serum Albumin in Rabbits," Clin. Exp. Immunol. 2:331-340, Blackwell Scientific Publications (1967) Rieger, R., et al., "allele" in Glossary of Genetics and Cytogenetics. Classic AS 18 and Molecular. Fourth Completely Revised Edition, Springer-Verlag, Berlin, Germany, pp. 17-18 (1976) Rixon, R.H., et al., "Parathyroid Hormone Fragments May Stimulate Bone Growth in Ovariectomized Rats by Activating Adenylyl Cyclase," J. Bone Min. Res. AТ <u>18</u> 9:1179-1189, Mary Ann Liebert, Inc. (1994)

Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

DATE CONSIDERED

Page 19 of 27 ATTY. DOCKET NO. APPLICATION NO. 0609.4730000/LBB/M-G 09/869,565 PODM DTO-1449 APPLICANT Gardella et al INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP October 17, 2001 1645 U.S. PATENT DOCUMENTS EXAMINER INITIAL DOCUMENT NUMBER DATE NAME SUB-CLASS FILING DATE AA AB AC AD RECEIVED AF MAY 1 4 2003 AG ΑН Technology Center 2600 ΑI AJ AK FOREIGN PATENT DOCUMENTS EYAMINED INITIAL DOCUMENT NUMBER DATE COUNTRY CLASS SUB-CLASS TRANSLATION Yes ΑL Yes ΔМ No Yes No Yes No Yes No AP OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

Robbins, D.C., et al., "Antibodies to Covalent Aggregates of Insulin in Blood of Insulin-Using Diabetic Patients, " Diabetes 36:838-841, American Diabetes AR 19 Association (1987) Rubin, D.A., and Jüppner, H., "Zebrafish Express the Common Parathyroid Hormone/Parathyroid Hormone-related Peptide Receptor (PTH1R) and a Novel Receptor (PTH3R) That Is Preferentially Activated by Mammalian and Fugufish Parathyroid Hormone-related Peptide, "J. Biol. Chem. 274:28185-28190, The American Society for Biochemistry and Molecular Biology, Inc. (October 1999) AS 19 Rosenblatt, M., "Parathyroid Hormone: Chemistry and Structure-Activity Relations," in Pathobiology Annual Vol. 11, Ioachim, H.L., ed., Raven Press, ΑT 19 NY, pp. 53-86 (1981) EXAMINED DATE CONSTDERED



FORM PTO-1449

ATTY. DOCKET NO. 0609.4730000/LBB/M-G

APPLICATION NO. 09/869,565

	FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT				APPLICANT Gardella et al.					
IN	ORMATI	ON DIS	CLOSURE STATE	MENT	FILING DATE October 17, 2001			GROUP L645		
				U.S. PAT	ENT DOCUMENTS					
EXAMINER INITIAL		DOCU	MENT NUMBER	DATE	NAME		CLASS	SUB-CLASS	FILING DATE	
	AA									
	AB									
	AC									
	AD						10	CEN		
	AE							ECEIV	LD	
	AF							MAY 1 4 7	003	
	AG	<u> </u>								
	AH						Tec	nology Cer	ter 2600	
	AI						e plante	diam'r.		
	AJ	4		ļ						
	AK					1				
				FOREIGN P.	ATENT DOCUMENTS					
EXAMINER INITIAL		DOCU	MENT NUMBER	DATE	COUNTRY		CLASS	SUB-CLASS	TRANSLATION	
	AL								Yes No	
-	AM								Yes No	
	AN								Yes No	
	AO								Yes No	
	AP								Yes No	
		07	HER (Includin	g Author, Ti	tle, Date, Pertine	nt Page	s, etc	.)		
	AR	20	Shimizu, M., of Parathyro	et al., "Typid Hormone, F ," J. Bone Mi	pe-Substitution Ana TH(1-14): An Appro in. Res. 14(suppl.	alysis o	of the	Amino-Termi ew Low Molec	ular Weight	
	AS	20	Containing a	nimizu, M., et al., "Autoactivation of Type-1 Parathyroid Hormone Receptors mtaining a Tethered Ligand," J. Biol. Chem. 275:19456-19460, The American ciety for Biochemistry and Molecular Biology, Inc. (June 2000)						
	AT	20	Shimizu, M., et el., "Minimization of Parathyroid Hormone. Novel Amino-Terminal Parathyroid Hormone Fragments with Enhanced Potency in Activating the Type-1 Parathyroid Hormone Receptor," J. Biol. Chem. 275:12836-21843, The American Society for Biochemistry and Molecular Biology, Inc. (July 2000)							
EXAMINER							DATE	CONSIDERED		



MAI		TA BY						Page 21 of 27		
PITENT	& TRADE	y			ATTY. DOCKET NO		APPLICATION			
_		т∩пм	PTO-1449		0609.4730000/LE		09/869,565			
TNE					APPLICANT Gardella et al.					
INC	DRMATIL	ON DIS	SCLOSURE STATE	MENT	FILING DATE October 17, 200		GROUP 1645			
				m.s. pa	TENT DOCUMENTS	31	1645			
EXAMINER	$\overline{}$	\top		T	TENT DOCUMENTS			T		
INITIAL	Д	DOC	UMENT NUMBER	DATE	NAME	CLAS	SS SUB-CLASS	FILING DATE		
	AA	1		Ι	Ι	\longrightarrow	Ι	I		
	AB	1		I				Ι		
	AC	1						I		
	AD	┷				\longrightarrow				
	AE	4_		└	L	\longrightarrow	RECE	:IVEU_		
	AF	+-			ļ	+-	MANY	1 20013		
	AG	+			ļ		MAIL	4 2003		
	AH	+-			<u> </u>		- Technology	Center 2600		
ļ	AI	+-		 	ļ		(Hoomisica)	0011101		
	AJ	+		 			+			
	AK	—								
EXAMINER				FOREIGN P.	ATENT DOCUMENTS					
EXAMINER INITIAL	_	DOCT	UMENT NUMBER	DATE	COUNTRY	CLAS	S SUB-CLASS	TRANSLATION		
							7	Yes		
	AL	↓			<u> </u>			No		
	AM	1_						Yes No		
	AN	\top						Yes No		
		1					+	Yes		
	AO	+					+	No Yes		
	AP	<u></u>	(71udin		- Post4			No		
		т	THER (Including	g Author, II	tle, Date, Perti	nent Pages, e	tc.)			
	AR	21	Smith, L.J., helix Bundle	et al., "Hum Protein," J.	man Interleukin 4 . Mol. Biol. 224	4. The Solution:899-904, Acad	on Structure of	of a Four- td. (1992)		
	AS	21	expressed in	mith, D.B., and Johnson, K.S., "Single-step purification of polypeptides xpressed in <i>Rscherichia</i> coli as fusions with glutathione S-transferase," <i>Gene</i> 7:31-40, Elsevier Science B.V. (1988)						
	AT	21	Smith, T.F., Math 2:482-48	and Waterman 39, Academic	n, M.S., "Compari Press, Inc. (198	ison of Biosec	Juences, " Adv	. Applied		
EXAMINER						DATE	E CONSIDERED			
EXAMINER: I Draw line th next communi	rough (citati	ion if not in .	dered, whethe	er or not citati and not consider	on is in conf red. Include	ormance with copy of this	MPEP 609. form with		



Page 22 of 27

	. \/									
			-		ATTY. DOCKET NO. 0609.4730000/LBB/M-G		APPLICATION 09/869,565			
*******			PTO-1449	4734M	APPLICANT Gardella et al.	•				
INFO	KMATIO	N DIS	CLOSURE STATEM	<u>IENI</u>	FILING DATE GROUP October 17, 2001 1645					
				U.S. PAT	TENT DOCUMENTS					
EXAMINER		Π								
INITIAL		DOC	JMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE		
	AA	├				-	+			
	AB	-					-			
	AC AD	\vdash				 				
	AE	┼								
	AF	\vdash				 	BEC	EIVED		
	AG	\vdash					111.	Viel V Labe		
	AH	 				 	MA	1 4 2003		
	AI						-			
	AJ						Lechnolo	gy Center 26		
	AK	 					Carry and Carry			
	1111			FOREIGN P	ATENT DOCUMENTS		1			
EXAMINER	Τ	T								
INITIAL		DOCU	MENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION		
	AL							Yes No		
								Yes		
	AM	\vdash						No Yes		
	AN							No		
	AO							Yes No		
	AP							Yes No		
		07	THER (Including	g Author, Tit	tle, Date, Pertinent Pag	es, et	c.)			
	AR	22		ole Calcitoni	neric Human Calcitonin a n Interaction Sites," <i>B</i>					
	AS	22	Suva, L.J., et al., "A Parathyroid Hormone-Related Protein Implicated in Malignant Hypercalcemia: Cloning and Expression," Science 237:893-896, American Association for the Advancement of Science (1987)							
	AT	22	Szabo, P., "In Situ Hybridization," in <i>Human Chromosomes. Manual of Basic Techniques</i> , Verma, R.S., and Babu, A., eds., Pergamon Press, New York, NY, pp.152-165 (1989)							
EXAMINER						DATE	CONSIDERED			
EXAMINER: II	nitial cough o	if r	eference consi ion if not in	dered, wheth	er or not citation is in	confo	rmance with opy of this	MPEP 609. form with		



MAY 09 D	4RK OF							Page 23 of 2		
PATENT & T	RADER				ATTY. DOCKET NO. 0609.4730000/LBB/M-G		APPLICATION 09/869,565			
			PTO-1449		APPLICANT Gardella et al.		0370037,303			
INF	ORMATI	ON DIS	SCLOSURE STATE	MENT	FILING DATE GROUP October 17, 2001 1645					
				U.S. PA	TENT DOCUMENTS					
EXAMINER INITIAL		DOC	UMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE		
	AA									
	AB						1			
	AC	+								
	AD	+-								
	AE	+					RECE	MED		
	AF	-				- '	ļ			
	AG	+					MAY 1	2003		
	AH	+				1 7	echnology C	onter 2600		
	AJ	+				13	echinology c	EIILEI ZOOO		
	AK	+		-		+				
	AK			PODETCH D	ATENT DOCUMENTS		1	l		
EXAMINER	T			FOREIGN P	ATENT DOCUMENTS		T			
INITIAL		DOCU	JMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION		
	1			ł				Yes		
	AL	┼				+		No		
	AM						1	Ye:		
							i	Yes		
	AN	-						No		
	AO	1			,	l		Yes No		
	AP							Yes No		
	1111	0:	THER (Includin	g Author, Ti	tle, Date, Pertinent Pa	ges. et	7.)	140		
***************************************		Γ.		g Heemon, in	out, pass, resemble re	iges, ec	/			
	AR	23	Peptide (PTH:	(P) Receptors	st, F., "Type-1 Parathy Activate Phospholipas (1-34)," <i>Endocrinology</i>	e C in F	esponse to C	arboxyl-		
	AS	23	Synthetic Per	egear, G.W., et al., "Bovine Parathyroid Hormone: Minimum Chain Length of nthetic Peptide Required for Biological Activity," <i>Endocrinology 93</i> :1349- 53, The Endocrine Society (1973)						
	ат	23	Human Parathy	roid Hormone	Jr., J.T., "Synthetic :: Influence of Residue : Commun. 2:561-570, Ma	Number	1 on Biologi	cal Potency		
EXAMINER						DATE	CONSIDERED			



\ .	000								Page 24 of 27	
ATENT	3.				ATTY. DOCKET NO. APPLICATION NO. 0609.4730000/LBB/M-G 09/869,565					
TNE			PTO-1449 CLOSURE STATE	MENT	APPLICANT Gardella et al.					
INF	JRMATIC	ON DIS	CLOSURE STATE	MEN I	FILING DATE October 17, 200	01		GROUP 1645		
				U.S. PA	TENT DOCUMENTS					
EXAMINER										
INITIAL		DOCU	MENT NUMBER	DATE	NAME		CLASS	SUB-CLASS	FILING DATE	
	AA_	ـــــ								
	AB	+-		.						
	AC	+-		ļ				RE	CENT	
	AD	+		ļ				, I LL.	JE19 4-6	
	AE	+						M.	AY 1 4 2003	
	AF	+-			<u> </u>			77	0-1-0	
	AG	+		-				tecnno	logy Center 2	
	AH	┿┈								
_	AI	+		-						
	AJ AK	+-						<u> </u>		
	AK			nonnraw r	ATENT DOCUMENTS				l	
EXAMINER	1	Т		FOREIGN F	TATENT DOCUMENTS			1	1	
INITIAL	1	DOCU	MENT NUMBER	DATE	COUNTRY		CLASS	SUB-CLASS	TRANSLATION	
									Yes	
	AL	_							Мо	
	AM				ļ				Yes No	
		+							Yes	
	AN								No	
	AO								Yes No	
	100	+							Yes	
	AP								No	
		01	THER (Includin	g Author, Ti	tle, Date, Perti	nent Pag	es, etc	2.)		
	AR	24	Turner, P., PTHrP," J. B 1997)	et al., "Sin one Min. Res	gle Mutations Al. . 12:Abs. No. 12	low the I	PTH2 Re well So	ceptor to reience, Inc.	espond to (August	
	AS	24	Receptors for	P.R., et al., "A Putative Selectivity Filter in the G-protein -coupled re for Parathyroid Hormone and Secretin," J. Biol. Chem. 271:9205-9208, rican Society for Biochemistry and Molecular Biology, Inc. (1996)						
	AT	24	Limit the Re: Peptide, " J.	sponse of the Biol. Chem.	ransmembrane Res e Parathyroid Ho 273:3830-3837, ' nc. (February 19	rmone (P.	TH) 2 R	eceptor to E	TH-related	
EXAMINER DATE CONSIDERED										



Page 25 of 27

CATENT BY								30 01 01
					ATTY. DOCKET NO. 0609.4730000/LBB/M-G		APPLICATION 09/869,565	NO.
			PTO-1449		APPLICANT Gardella et al.			
110	FORMATI	ON DI	SCLOSURE STATE	MENT	FILING DATE October 17, 2001		GROUP 1645	
				U.S. PA	TENT DOCUMENTS			
EXAMINER		T	UMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
INITIAL	AA	DOC	OMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FIDING DATE
	AB	+				 		
	AC			-	1			
	AD							
	AE					L	550	
	AF			<u> </u>			HEC	EIVED
	AG						MAY	1 4 2003
	AH					ļ		
	AI	+				-	(Technolo	y Center 260
	AJ AK	+		ļ		-	Berthadan	
	AK			PODRICH D	ATENT DOCUMENTS			l
EXAMINER		Т		FOREIGN P	ATENT DOCUMENTS	Ι	1	T
INITIAL		DOC	UMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	1							Yes
	AL	+				1		No Yes
	AM							No
	AN							Yes No
	AO							Yes No
		1						Yes
	AP			l				No
		_ °	THER (Includin	g Author, Ti	tle, Date, Pertinent Pag	es, et	c.)	
	AR	25	Rat Glucagon Transport to	Receptor. Se the Plasma I	acterization of Deletion even Transmembrane Segme Membrane and Glucagon Bi rican Society for Bioche	nts ar nding,	e Necessary : " J. Biol. C.	for Receptor hem.
	AS 25 Van Ostade, X., et al., "Human TNF mutants with selective activity on the receptor," Nature 361:266-269, Macmillan Magazines Ltd. (1993)							on the p55
	AT	25	von Heinje, Nucl. Acids.	G., "A new m Res. 14:468.	ethod for predicting sig 3-4690, IRL Pres Ltd. (1	nal se	quence cleav	age sites,"
EXAMINER						DATE	CONSIDERED	
EXAMINER: Draw line t next commun	hrough	citat	ion if not in		ner or not citation is in and not considered. Ind			
mext commun	11Cation	L CO A	ppilcant.					



AS 26

AT 26

Page 26 of 27 ATTY. DOCKET NO. APPLICATION NO. 0609.4730000/LBB/M-G 09/869,565 FORM PTO-1449 ADDITED NO Gardella et al. INFORMATION DISCLOSURE STATEMENT GROUP FILING DATE October 17, 2001 1645 U.S. PATENT DOCUMENTS EXAMINER DATE MAME CLASS SUB-CLASS FILING DATE INITIAL DOCUMENT NUMBER 44 AB AC AD RECEIVED AE AF MAY 1 4 2003 AG AΗ Technology Center 2600 аτ Δ.Τ AK FOREIGN PATENT DOCUMENTS EXAMINER DOCUMENT NUMBER SUB-CLASS TRANSLATION INITIAL DATE COUNTRY CLASS AT. MO Yes No Yes AN Yes 20 No Yes AP Nο OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Wilson, I.A., et al., "The Structure of an Antigenic Determinant in a Protein," Cell 37:767-778, MIT (1984) AR 26

EXAMINER: DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

(mailed May 3, 2000)

Zhou, A., et al., "Direct mapping of an agonist-binding domain within the parathyroid hormone/parathyroid hormone-related protein receptor by

photoaffinity crosslinking," Proc. Natl. Acad. Sci. USA 94:3644-3649, National Academy of Sciences (April 1997)

International Search Report for International Patent Application PCT/US99/27656



Dago 27 of 27

		97							Page 27 of 27	
PATENT 8					ATTY. DOCKET NO. 0609.4730000/LBB/M-G			APPLICATION NO. 09/869,565		
FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT					APPLICANT Gardella et al.					
					FILING DATE			GROUP 1645		
				U.S. PA	TENT DOCUMENTS					
EXAMINER INITIAL		DOC	UMENT NUMBER	DATE	NAME		CLASS	SUB-CLASS	FILING DATE	
	AA									
	AB									
	AC						ļ			
	AD	4						- n-		
	AE	4					<u> </u>	HEC	EIVED	
	AF	+					 	MAY	1 4 2003	
	AG	+		 			-		1 2000	
	AH	+-		 			-		gy Center 26	
	AI	+					-	B. State Line	37	
	AK	1					 			
				POREIGN P	ATENT DOCUMENTS		L			
EXAMINER										
INITIAL	_	DOC	UMENT NUMBER	DATE	COUNTRY		CLASS	SUB-CLASS	TRANSLATION	
	AL								Yes No	
	AM	T							Yes No	
		1							Yes	
	AN	+							No Yes	
	AO .	╁							No Yes	
	AP								No No	
		- 0	THER (Includin	g Author, Ti	tle, Date, Pert	inent Pag	es, et	c.)		
	AR 27 International Search Report for International Patent Application FCT. (mailed April 18, 2000)								T/US99/28207	
	AS	AS 27 International Search Report for International Patent Application PCT/US00/04716, (mailed October 11, 2000)								
	AT	<u>27</u>	Dialog File for European Information	Patent Publi	ession No. 8882525, Derwent WPI English language abstract Publication No. EP 0 464 533 (Document AN1), Derwent 92)					
EXAMINER							DATE	CONSIDERED		
EXAMINER: Draw line t	Initial hrough	if r	ion if not in	dered, wheth	er or not citat	ion is in	confo	rmance with	MPEP 609. form with	